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**LOCATING A MID-SAGITTAL PLANE
ABSTRACT OF THE DISCLOSURE**

Volumes of interest may be defined, within a three-dimensional brain image, for
5 each of three orthogonal directions. Measures, which may, for example, be energy or
entropy measures, are determined for slices of the volumes of interest in the three
directions. The volume of interest corresponding to the sagittal direction is then
identified. The slice, among the slices in the volume of interest corresponding to the
identified sagittal direction, having the optical measure is used to define a first estimate
10 of the mid-sagittal plane. The first estimate of the mid-sagittal plane may then be used
to build an input to an optimization technique, which operates until a convergence
criterion is satisfied, at which point a final estimate of the mid-sagittal plane may be
produced.